



YAMAHA

SNOWMOBILE

ET250D



SUPPLEMENTARY SERVICE MANUAL

Frame serial number: 8J5-038101 ~ 8J5-049999
Engine serial number: S246-038101 ~ S246-049999

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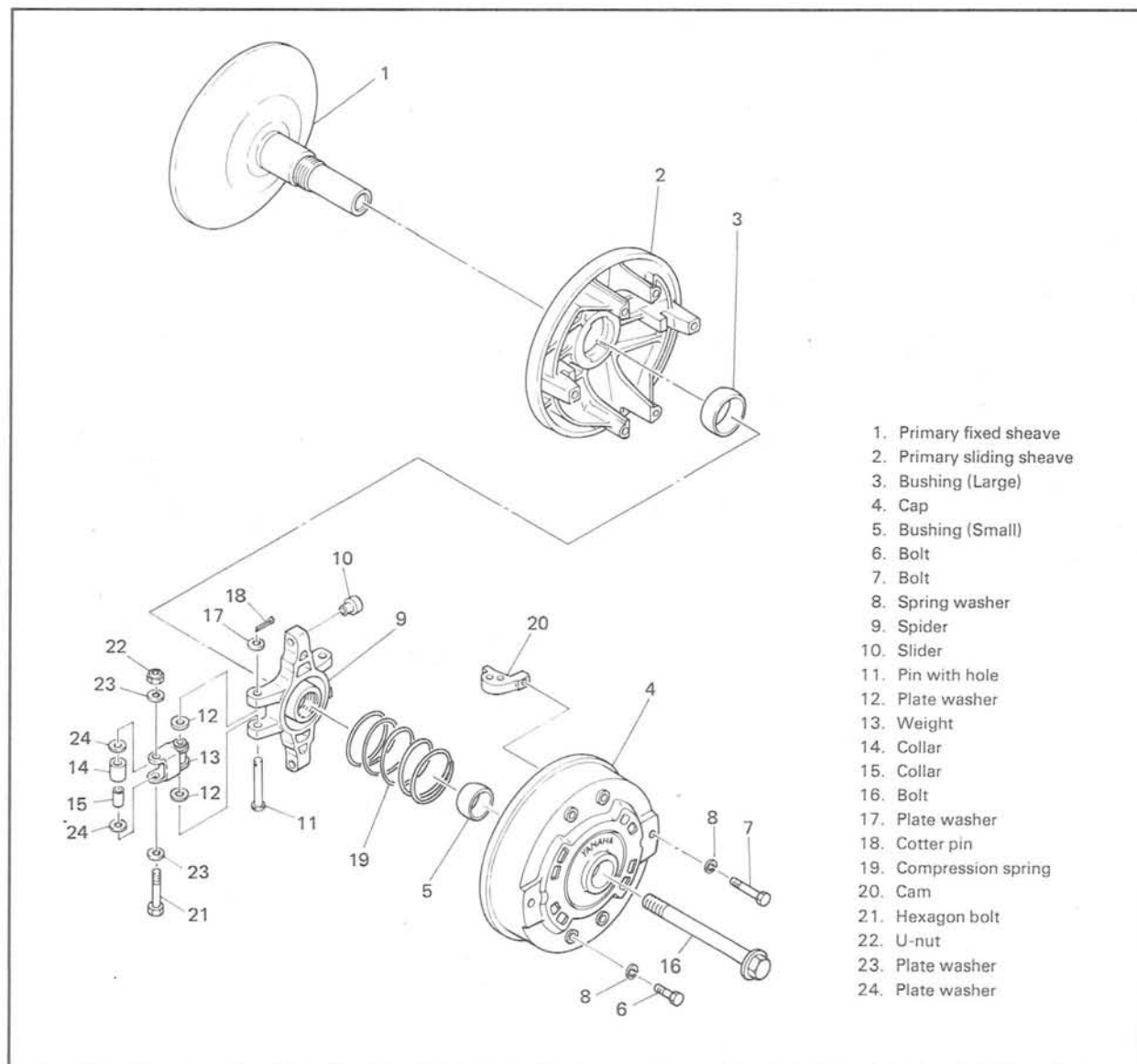
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1. NEW SERVICE PROCEDURE

(New service procedure applied to the 1980 ET250D)

A. Primary sheave

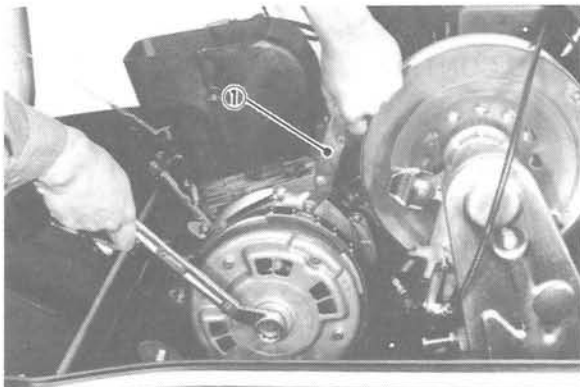
For better clutch operation and durability, a new clutch has been adopted.



1. Removal

- a. Remove the primary sheave mounting bolt, using the sheave holder.

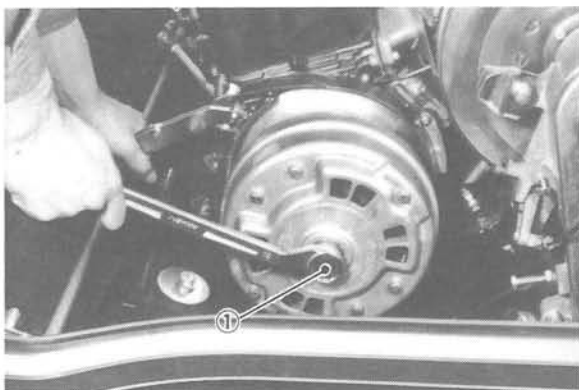
Tool name	Tool No.
Sheave holder	90890-01880



1. Sheave holder

- b. Remove the primary sheave assembly, using the primary fixed sheave puller bolt and primary sheave holding tool.

Tool name	Tool No.
Primary fixed sheave puller bolt (M18 P1.5)	90890-01881



1. Primary fixed sheave puller bolt

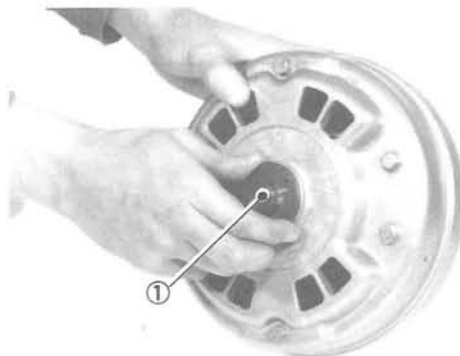
2. Disassembly

- a. Separate the sliding sheave assembly from the fixed sheave by rotating the sliding sheave counterclockwise.



- b. Install the sheave sub-assembly tool to the primary sheave.

Tool name	Tool No.
Sheave sub-assembly tool	90890-01879



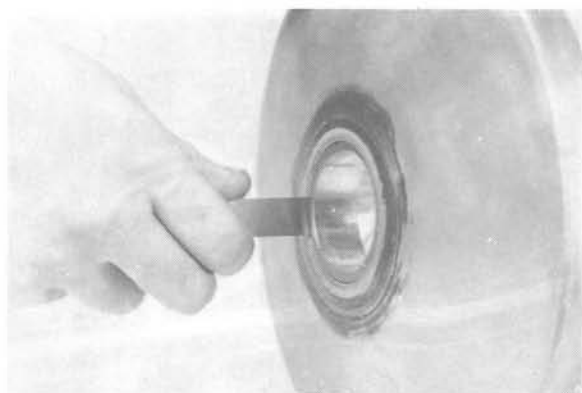
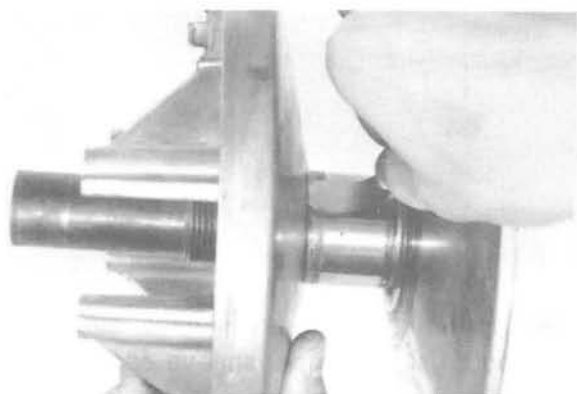
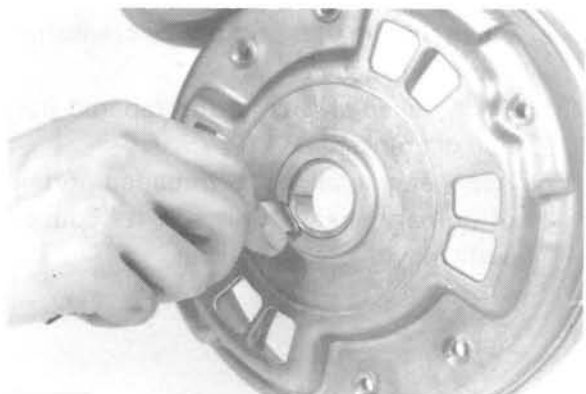
1. Sheave sub-assembly tool

- c. Loosen the six bolts securing the primary sheave cap and sliding sheave.
- d. Remove the sheave subassembly tool. The primary sheave cap and sliding sheave cap now be disassembled.

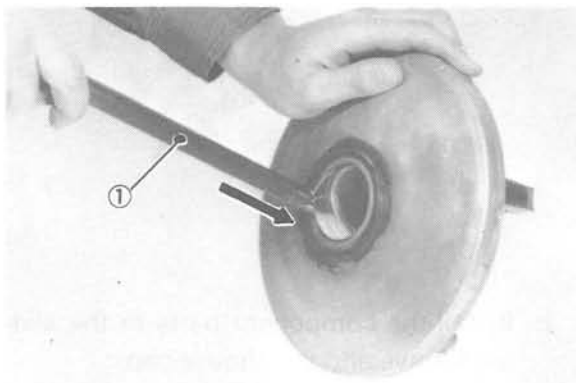
3. Inspection

- a. Check the tapered ends of the crankshaft and primary fixed sheave for scratches. If scratched unduly, replace. If scratches are minor, burnish with emery cloth.
- b. Check the primary sheave cap bushing and sliding sheave bushing for wear. If beyond tolerance, replace the bushing.

bushing clearance, limit		
	Small bushing	Large bushing
Inside	0.25 mm (0.01 in)	0.25 mm (0.01 in)
Outside	0.25 mm (0.01 in)	0.25 mm (0.01 in)



Tool name	Tool No.
Bushing tool	90890-01877

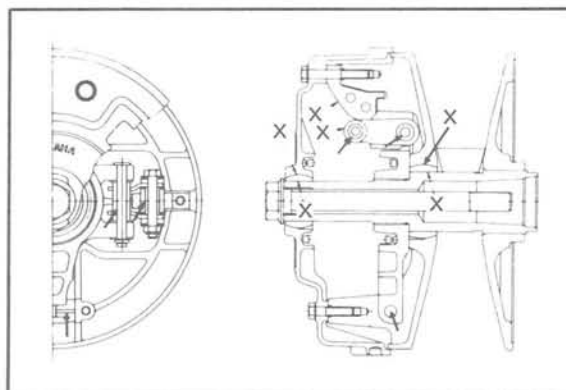


1. Bushing tool

- c. Check the compression spring for free length. If excessively fatigued, replace.
- d. Check the spider and roller for smooth movement and wear.
- e. Check both sheaves for warping. If warped, replace.

4. Reassembly

- a. Oil the points shown in the illustration. Do not apply the grease on the portion of X mark. For other parts, greasing is unnecessary.



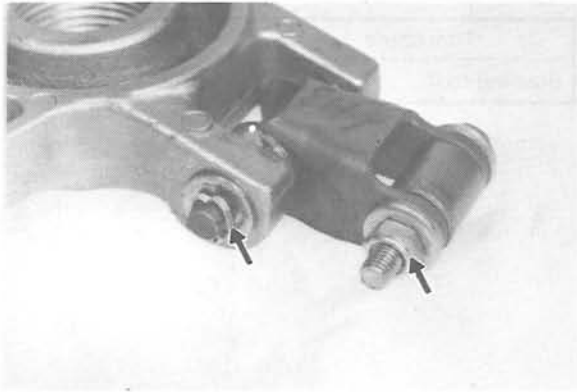
← X Free from grease
 ← Greasing point

CAUTION:

If the U-nut or cotter pin is removed for the greasing, replace it with new one.

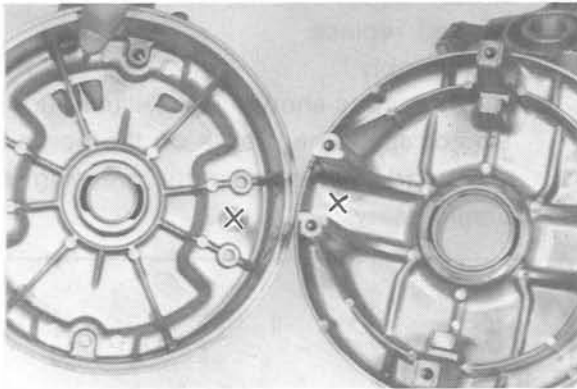
NOTE:

If bushing is installed tightly, remove the bushing using the bushing tool.



- b. Install the component parts to the sliding sheave and the sheave cap.

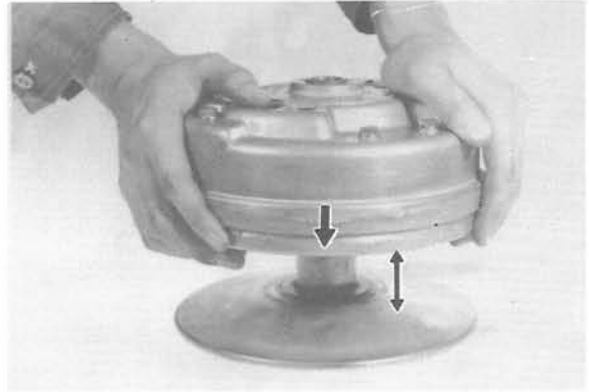
NOTE: _____
When installing the primary sheave cap to the primary sliding sheave, be sure to align the X mark on the sheave cap with that on the spider.



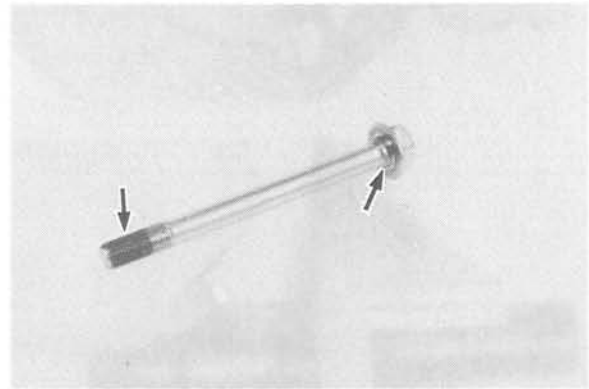
- c. Install the sheave subassembly tool and tighten the cap.
- d. Tighten the six primary sheave cap bolts and remove the subassembly tool.

Tightening torque:
1.1 m·kg (8 ft·lb)

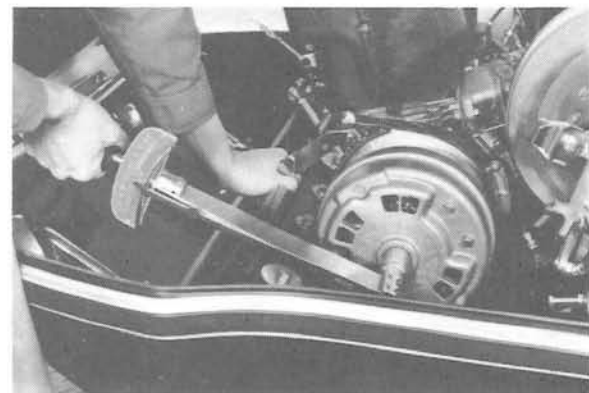
CAUTION: _____
Make sure that the primary sheave cap assembly slides in contact with the fixed sheave boss.



- e. Clean the tapered portions of crankshaft and fixed sheave.
- f. Fit the fixed sheave to the tapered portion of crankshaft.
- g. Apply engine oil to the threaded portion of primary sheave bolt and its contact surface with spring washer.



- h. Tighten the primary sheave mounting bolt, using primary sheave cap holding tool.



Tightening torque:

First tighten the bolt to a torque of A, then loosen it.

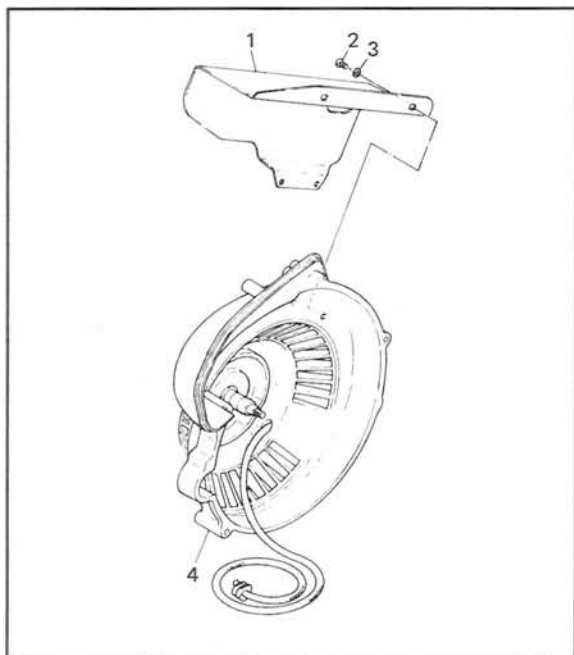
Retightened bolt to a final torque of B.

A.: 10 m-kg (72.5 ft-lb)

B.: 6 m-kg (43.5 ft-lb)

B. Starter

The air duct is no longer provided because there will be no problem of overheating. Accordingly, the insert for mounting of the air duct on the starter case is no longer used.



1. Air duct ... No longer used
2. Screw ... No longer used
3. Plain washer ... No longer used
4. Starter case

NOTE:

The 1979 model can also be used without installing the air duct.

2. MAINTENANCE INTERVALS

[PERIODIC MAINTENANCE]

Check point	Every			When necessary	Seasonally
	20 hrs. or 400 km (250 mi)	40 hrs. or 800 km (500 mi)	80 hrs or 1600 km (1000 mi)		
ENGINE:					
Tightness of bolts and nuts	<input type="radio"/>				<input type="radio"/>
Bends, cracks and wear	<input type="radio"/>				<input type="radio"/>
Abnormal noise	<input type="radio"/>				<input type="radio"/>
Loose connection and breaks of fuel and pulse pipes	<input type="radio"/>				<input type="radio"/>
Loose connection and breaks of oil pipes	<input type="radio"/>				<input type="radio"/>
Loose connection and breaks of oil delivery pipe	<input type="radio"/>				<input type="radio"/>
Manual rope starter system		<input type="radio"/>			<input type="radio"/>
Carburetor					
● Fuel level		<input type="radio"/>			<input type="radio"/>
● Operation of starter jet		<input type="radio"/>			<input type="radio"/>
● Mixing adjuster (pilot screw)				<input type="radio"/>	<input type="radio"/>
● Idling speed adjustment				<input type="radio"/>	<input type="radio"/>
Operation and adjustment of oil pump		<input type="radio"/>			<input type="radio"/>
Ignition timing					<input type="radio"/>
Cylinder compressions			<input type="radio"/>		<input type="radio"/>
Cylinder head/exhaust pipe decarbonize					<input type="radio"/>
Spark plug condition, gap and cleaning	<input type="radio"/>				<input type="radio"/>
Tightening of the cylinder head**					<input type="radio"/>
DRIVE:					
Tightness of bolts and nuts	<input type="radio"/>				<input type="radio"/>
Wear on slide runners	<input type="radio"/>				<input type="radio"/>
Primary drive system		<input type="radio"/>			<input type="radio"/>
V-belt	<input type="radio"/>				<input type="radio"/>
Secondary drive system		<input type="radio"/>			<input type="radio"/>
Sheave distance		<input type="radio"/>			<input type="radio"/>
Sheave offset		<input type="radio"/>			<input type="radio"/>
Brake pad wear		<input type="radio"/>			<input type="radio"/>
Brake operation and adjustment		<input type="radio"/>			<input type="radio"/>
Guide wheel rubber		<input type="radio"/>			<input type="radio"/>
Wear of drive track wheel sprocket		<input type="radio"/>			<input type="radio"/>
Drive track adjustment		Initial 100 km (60 mi) and 300 km (200 mi)	<input type="radio"/>		<input type="radio"/>
Breaks in drive track			<input type="radio"/>		<input type="radio"/>
Bends in front and rear axles			<input type="radio"/>		<input type="radio"/>
Checking of lock washers			<input type="radio"/>		<input type="radio"/>
Drive chain adjustment			<input type="radio"/>		<input type="radio"/>
Drive chain oil level			<input type="radio"/>		<input type="radio"/>
BODY:					
Tightness of bolts and nuts	<input type="radio"/>				<input type="radio"/>
Bends and cracks	<input type="radio"/>				<input type="radio"/>
Welded riveted, joints	<input type="radio"/>				<input type="radio"/>
Ski adjustment		<input type="radio"/>			<input type="radio"/>
Ski runner wear	<input type="radio"/>				<input type="radio"/>
Breaks in fuel tank		<input type="radio"/>			<input type="radio"/>
Cleaning of fuel tank					<input type="radio"/>
Fuel filter					<input type="radio"/>
Loose connection and breaks in fuel pipe		<input type="radio"/>			<input type="radio"/>
Breaks in oil tank		<input type="radio"/>			<input type="radio"/>
Oil filter					<input type="radio"/>

Check point	Every			When necessary	Seasonally
	20 hrs. or 400 km (250 mi)	40 hrs. or 800 km (500 mi)	80 hrs or 1600 km (1000 mi)		
ELECTRICAL:					
Wear, breakage of wire covering		○			○
Breaks in high-tension cord	○				○
Voltage regulator working voltage					○
Operation of engine stop switch		○			○
Operation of tether switch		○			○
Headlight		○			○
Taillight		○			○
Brake light		○			○

** Retighten every 10 hours from the first use.

[LUBRICATION INTERVALS]

Lubrication point	Every			When necessary	Seasonally	Oil/Grease Brand name
	20 hrs. or 400 km (250 mi)	40 hrs. or 800 km (500 mi)	80 hrs. or 1,600 km (1,000 mi)			
ENGINE:						
Starter case					○	Aeroshell grease #7A or Esso Beacon 325 grease
Oil pump control box			○		○	
Pump drive cover			○		○	
Oil in the oil tank				○		YAMALUBE 2-cycle oil
DRIVE:						
Primary sheave weight and roller pins		○			○	Molybdenum disulfide snowmobile grease
Secondary shaft and sliding sheave		○			○	
Front axle housing		○			○	Light all-purpose grease
Shaft 1 and shaft 2 (Slide rail)			○		○	
Drive chain oil replacement		○			○	Gear oil API "GL-3" SAE #75 or #80
BODY:						
Steering column lower bearing		○			○	Light all-purpose grease
Steering column upper bearing		○			○	Motor oil
Steering links		○			○	Light all-purpose grease
Ski column		○			○	
Ski wear plate		○			○	
Ski retaining pin		○			○	
Brake wire end stopper and brake lever		○			○	Esso Beacon 325 grease

3. SPECIFICATIONS

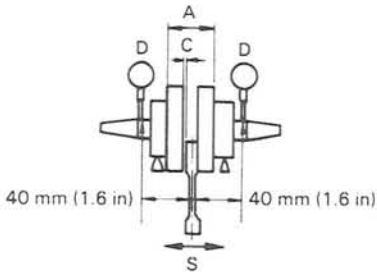
General

NOTE: * ... New specification
(Compared with 1979 ET250C)

Model:	
Model (I.B.M. No.)	* ET250D (8J5)
Frame I.D. and starting number	* 8J5-038101
Engine I.D. and starting number	* S246-038101
Dimension:	
Overall length	2,385 mm (93.9 in)
Overall width (std)	905 mm (35.6 in)
Overall height (w/windshield)	965 mm (38.0 in)

Engine

Description:	
Engine type	Fan cooled, two stroke 5-port, single cylinder
Engine model	S246
Displacement	246 cm ³ (15 cu.in)
Bore × stroke	73 × 59 mm (2.87 × 2.3 in)
Effective compression ratio	6.6 : 1
Starting system	Recoil hand starter
Ignition system	C.D.I.
Lubrication system	"Autolube" oil injection
Cylinder head:	
Combustion chamber volume (with spark plug)	29.6 cc (1.81 cu.in)
Compression chamber type	Dome + squish
Head gasket thickness	0.5 mm (0.02 in)
Cylinder:	
Material	Cast iron sleeves aluminum cylinder
Bore size	73 mm (2.87 in)
Taper limit	0.05 mm (0.0020 in)
Out of round limit	0.01 mm (0.0004 in)
Piston:	
Piston skirt clearance (Measuring point)	0.045 ~ 0.050 mm (0.0018 ~ 0.0020 in) (10 mm from piston skirt end)
Piston over size	1st 73.25 mm (2.88 in) 2nd 73.50 mm (2.89 in) 3rd 73.75 mm (2.90 in) 4th 74.00 mm (2.91 in)
Piston pin outside diameter × length	18 × 55 mm (0.71 × 2.17 in)
Piston ring:	
Piston ring design (Top)	Keystone
Piston ring design (2nd)	Keystone
Ring end gap (Installed) (Top)	0.3 ~ 0.5 mm (0.012 ~ 0.020 in)
Ring end gap (Installed) (2nd)	0.3 ~ 0.5 mm (0.012 ~ 0.020 in)
Small end bearing:	
Type	Needle bearing
Big end bearing:	
Type	Needle bearing
Crankshaft:	
Crankshaft assembly width (A)	56 ⁺⁰ _{-0.05} mm (2.2 ⁺⁰ _{-0.002} in)
Crankshaft deflection (D)	0.02 mm (0.0008 in)

<p>Connecting rod large end side clearance (C) Connecting rod small end deflection (S)</p>  <p>40 mm (1.6 in) 40 mm (1.6 in)</p> <p>Crank pin outside diameter × length Crank pin type Crank bearing type (Left) × q'ty Crank bearing type (Right) × q'ty Crank oil seal type (Left) × q'ty Crank oil seal type (Right) × q'ty</p>	<p>0.5 mm (0.02 in) 2 mm (0.079 in)</p> <p>24 × 55 mm (0.945 × 2.165 in) Solid shaft * #6306 C3 special treatment x 1 pc. #6206 C3 × 1 pc. * FPJ30-72-8 x 1 pc. FPJ30-48-8 × 1 pc.</p>																																																							
<p>Carburetor: Type and manufacture/quantity I.D. mark Main jet (M.J.) Slow adjusting screw (Air screw) (S.A.) Slow jet (S.J.) Intermediate jet (I.J.) Starter jet (St.J.) Fuel level (F.L.) Idling engine speed</p>	<p>CDX38-32 KEIHIN SEIKI × 1 8G501 #138 2.0 turns out #50 #38 0.95 mm (0.04 in) + 5 ± 3.5 mm (0.20 ± 0.14 in) 1,300 r/min</p>																																																							
<p>Main jet setting chart:</p> <table border="1" data-bbox="495 1138 1367 1549"> <thead> <tr> <th rowspan="2">Altitude</th> <th colspan="6">Temperature</th> </tr> <tr> <th>-30°C (-22°F)</th> <th>-20°C (-4°F)</th> <th>-10°C (14°F)</th> <th>0°C (32°F)</th> <th>10°C (50°F)</th> <th>20°C (68°F)</th> </tr> </thead> <tbody> <tr> <td>Sea level</td> <td colspan="3">← #138 →</td> <td colspan="3">← #130 →</td> </tr> <tr> <td>~ 600m (2000 ft)</td> <td colspan="3">← #138 →</td> <td colspan="3">← #130 →</td> </tr> <tr> <td>~ 1200m (4000 ft)</td> <td colspan="3">← #138 →</td> <td colspan="3">← #130 →</td> </tr> <tr> <td>~ 1800m (6000 ft)</td> <td>← #138 →</td> <td colspan="3">← #130 →</td> <td colspan="2">← #125* →</td> </tr> <tr> <td>~ 2400m (8000 ft)</td> <td colspan="3">← #130 →</td> <td colspan="3">← #125* →</td> </tr> <tr> <td>~ 3000m (10000 ft) or more</td> <td colspan="3">← #125* →</td> <td colspan="3">← #120* →</td> </tr> </tbody> </table> <p>* Change the Slow jet to #45 Change the slow adjusting screw to 1-1/4 ~ 1-1/2 turns out.</p>		Altitude	Temperature						-30°C (-22°F)	-20°C (-4°F)	-10°C (14°F)	0°C (32°F)	10°C (50°F)	20°C (68°F)	Sea level	← #138 →			← #130 →			~ 600m (2000 ft)	← #138 →			← #130 →			~ 1200m (4000 ft)	← #138 →			← #130 →			~ 1800m (6000 ft)	← #138 →	← #130 →			← #125* →		~ 2400m (8000 ft)	← #130 →			← #125* →			~ 3000m (10000 ft) or more	← #125* →			← #120* →		
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<p>Lubrication: Autolube pump — Color code Autolube pump — Minimum stroke Autolube pump — Maximum stroke Autolube pump — Reduction ratio Autolube pump — Output Min. Autolube pump — Output Max. Oil tank capacity Oil grade</p>	<p>Green 0.20 ~ 0.25 mm (0.008 ~ 0.01 in) 1.85 ~ 2.05 mm (0.073 ~ 0.081 in) 1/40 13.5 cc/h/1,300 r/min (0.46 oz/h/1,300 r/min) 440 cc/h/6,500 r/min (14.9 oz/h/6,500 r/min) 2.2 liter (2.3 U.S. qt) YAMALUBE 2-cycle oil</p>																																																							

Drive and track suspension

Transmission: Type Drive ratio Engagement rpm Primary spring Part No. Primary spring Color code Secondary spring Part No. Secondary spring Color code Secondary spring pre-load (Twist) Sheave distance Sheave off-set V-belt width and outer line length V-belt wear limit	V-belt automatic centrifugal engagement 3.5 : 1 ~ 1 : 1 * 3,400 r/min * 90501-55559 * Blue 90508-40080 Not painted 160° * 266 ± 2 mm (10.47 ± 0.08 in) 11 ± 1 mm (0.43 ± 0.04 in) 31.6 × 1,099 mm (1.24 × 43.3 in) 26 mm (1.02 in)
Track suspension: Type Damper type Slide runner wear limit Track width Track deflection Length on ground Wheel sprocket material and number of teeth	Slide rail suspension Oil and gas damper 10 mm (0.4 in) 381 mm (15 in) 25 ~ 30 mm/10 kg (0.98 ~ 1.18 in/22 lb) 650 mm (25.6 in) * Polyethylene 11T
Secondary drive: Type Reduction ratio Chain pitch × number of links Free play Chain housing oil quantity Chain housing oil grade	Chain (#40K-1) 22/13 (1.692) 12.7 mm (0.5 in) × 60 pcs. 10 ⁺⁵ / ₋₂ mm (0.4 ⁺² / _{-0.08} in) 450 cc (15.21 oz) Gear oil API "GL-3" SAE #75 or #80
Brake: Type Brake pad thickness Brake pad wear limit Gap between pad and disc	Disc brake 7.3 mm (0.29 in) 1 mm (0.04 in) 0.2 ~ 1.0 mm (0.008 ~ 0.039 in)

Chassis

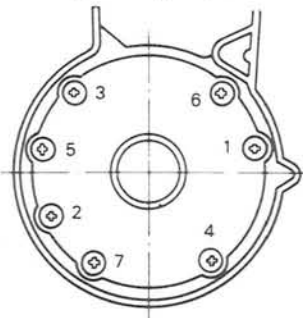
Frame: Frame design and material	Aluminum and steel
Steering system: Caster (ski column) Camber Ski length × width × thickness Ski stance Ski toe-out Steering linkage type Lock to lock angle (Steering column) Right Lock to lock angle (Steering column) Left Lock to lock angle (Ski) Right Lock to lock angle (Ski) Left	25° 0° 980 x 120 x 1.6 mm (38.6 x 4.7 x 0.06 in) 750 mm (38.6 in) 0 ~ 6 mm (0.24 in) Tie-rod 55° 15' 55° 15' Right hand ski 24.9°, Left hand ski 27.6° Right hand ski 27.6°, Left hand ski 24.9°
Front suspension: Type Damper type	Leaf spring × 3 Oil damper
Fuel tank: Capacity Fuel grade	18 Liter (4.8 US gal) Regular gasoline

Electrical

Ignition system: Type—flywheel magneto (C.D.I. Type) Model/manufacturer Voltage Pulser coil resistance Charging coil resistance	F3T355/MITSUBISHI 12V 9.0Ω at 20°C (68°F) (White/Red—Black) 350Ω at 20°C (68°F) (Brown—Black) 15.0Ω at 20°C (68°F) (Blue—Black)
Ignition timing: B.T.D.C.	1.2 ± 0.1 mm (0.05 ± 0.004 in)
Ignition coil: Model: Manufacturer Spark gap Primary winding resistance Secondary winding resistance Diode (Yes or No)	F6T411/MITSUBISHI 9 mm (0.35 in)/300 r/min 11 mm (0.43 in)/3,000 r/min 1.0Ω at 20°C (68°F) 5.9kΩ at 20°C (68°F) No
Spark plug: Type and quantity Spark plug gap	NGK B-8HS × 1 pc. 0.5 ~ 0.6 mm (0.020 ~ 0.024 in)
Spark plug cap: Type Noise suppressor resistance	Rubber type with noise suppressor 5 kΩ at 20°C (68°F)
C.D.I. unit: Model/manufacturer	8H4-20/MITSUBISHI
Lighting system: Lighting output Lighting coil resistance Head light type Bulb wattage/q'ty Tail/brake light wattage	12V-100W 0.19Ω at 20°C (68°F) (Yellow—Black) Semi shield 12V-60/60W × 1 pc. 12V-8W/23W
A.C. regulator: Model/manufacturer Voltage	TRIZ-24B HITACHI 13.8 ± 0.5V

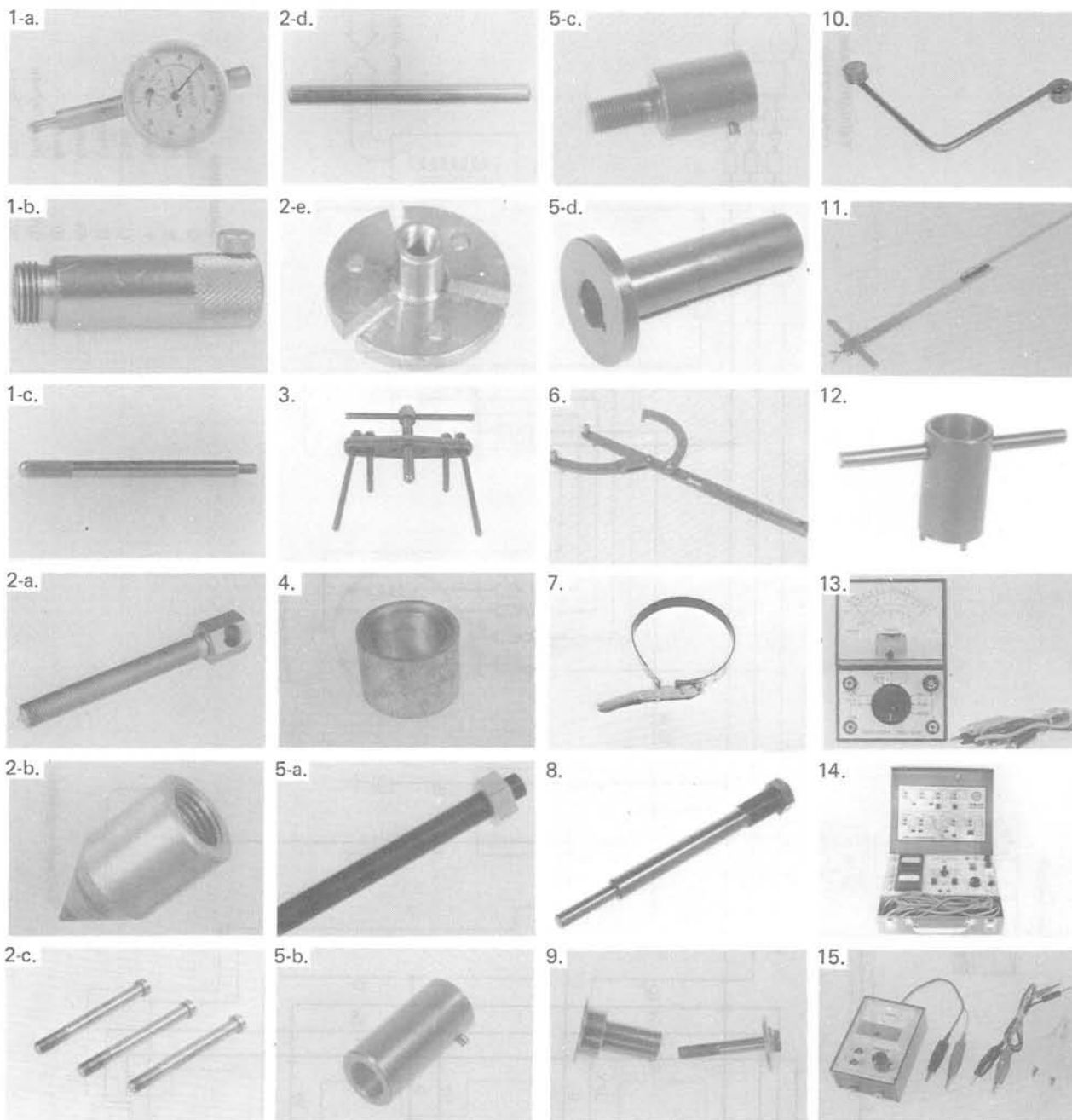
Tightening torque

Part to be tightened	Thread size	Tightening torque	Remarks
[Engine]			
Spark plug	M14 P1.25	2.8 m·kg (20 ft·lb)	
Cylinder head	M8 P1.25	First: 2.0 m·kg (14.5 ft·lb) Final: 2.5 m·kg (18 ft·lb)	
Flywheel magneto	M16 P1.0	7.3 m·kg (53 ft·lb)	
Fand and flywheel magneto	M6 P1.0	1.0 m·kg (7 ft·lb)	Use LOCK-TITE
Pully and flywheel magneto	M8 P1.25	1.6 m·kg (11.5 ft·lb)	
Flywheel base	M6 P1.0	0.7 m·kg (5 ft·lb)	

Part to be tightened	Thread size	Tightening torque	Remarks
Crankcase left and right Tightening sequence 	M6 P1.0	0.7 m-kg (5 ft-lb)	
Crankcase and engine bracket	M10 P1.25	3.0 m-kg (22 ft-lb)	
Cylinder and ring nut	M8 P1.25	2.3 m-kg (16.5 ft-lb)	
Pump drive cover and crankcase	M8 P1.25	2.3 m-kg (16.5 ft-lb)	Use LOCK-TITE
Pump drive cover and crankcase	M6 P1.0	1.0 m-kg (7 ft-lb)	Use LOCK-TITE
Starter case and crankcase	M6 P1.0	1.0 m-kg (7 ft-lb)	
Cylinder head and air shroud	M6 P1.0	0.7 m-kg (5 ft-lb)	Use LOCK-TITE
Crankcase and air shroud	M6 P1.0	0.7 m-kg (5 ft-lb)	Use LOCK-TITE
Air shroud 1 and 2	M6 P1.0	0.7 m-kg (5 ft-lb)	Use LOCK-TITE
Pump drive cover 1 and 2	M6 P1.0	0.7 m-kg (5 ft-lb)	Use LOCK-TITE
Silencer 1 and 2	M5 P0.8	0.5 m-kg (3.5 ft-lb)	
Startercase and duct	M5 P0.8	0.5 m-kg (3.5 ft-lb)	Use LOCK-TITE
[Drive and track suspension] * Primary sliding sheave and cap * Installation of primary sheave	M6 P1.0 UNF 1/2"	1.1 m-kg (8 ft-lb) Initial: 10 m-kg (72.5 ft-lb) Loosen once and retighten: 6.0 m-kg (43.5 ft-lb)	Use motor oil
Chaincase housing and frame	M8 P1.25	2.5 m-kg (18 ft-lb)	
Front axle housing and frame	M8 P1.25	2.5 m-kg (18 ft-lb)	
Front axle (R.H.)	M20 P1.0	8.0 m-kg (58 ft-lb)	
Chain drive sprocket	M12 P1.25	4.0 m-kg (29 ft-lb)	Use cotter pin
Chain driven sprocket	M8 P1.25	2.5 m-kg (18 ft-lb)	
Housing cap	M8 P1.25	1.5 m-kg (11 ft-lb)	
Chain tensioner adjusting lock nut	M10 P1.25	3.3 m-kg (24 ft-lb)	
Sprocket wheel and front axle	—	0.5 m-kg (3.5 ft-lb)	
Shaft 1 and frame	M10 P1.25	5.5 m-kg (40 ft-lb)	
Pivot arm 1 and sliding frame 1	M10 P1.25	4.0 m-kg (29 ft-lb)	Use LOCK-TITE
Suspension wheel	M12 P1.25	8.0 m-kg (58 ft-lb)	
Spring hook	M8 P1.25	2.5 m-kg (18 ft-lb)	
Sliding frame 1	M8 P1.25	2.5 m-kg (18 ft-lb)	
Rear guide wheel	M8 P1.25	2.5 m-kg (18 ft-lb)	Use LOCK-TITE
Sliding runner 1	M6 P1.0	0.25 m-kg (2 ft-lb)	
Sliding runner 2	M6 P1.0	0.6 m-kg (4.5 ft-lb)	
Stopper	M6 P1.0	0.4 m-kg (3 ft-lb)	
[Chassis]			
Engine mounting bolt (nut)	M10 P1.25	3.0 m-kg (22 ft-lb)	
Ski runner	M8 P1.25	1.4 m-kg (10 ft-lb)	
Steering column and gate	M8 P1.25	2.0 m-kg (14.5 ft-lb)	
Steering relay rod adjusting nut	M10 P1.25	3.0 m-kg (22 ft-lb)	
Universal joint	M10 P1.25	3.0 m-kg (22 ft-lb)	
Outside arm and ski column	M10 P1.25	3.0 m-kg (22 ft-lb)	
Steering relay ass'y	M10 P1.25	3.0 m-kg (22 ft-lb)	
Steering lower bracket	M8 P1.25	2.0 m-kg (14.5 ft-lb)	
Steering column 1 and 2	M8 P1.25	1.4 m-kg (10 ft-lb)	
Steering gate	M8 P1.25	1.4 m-kg (10 ft-lb)	

4. SPECIAL TOOLS

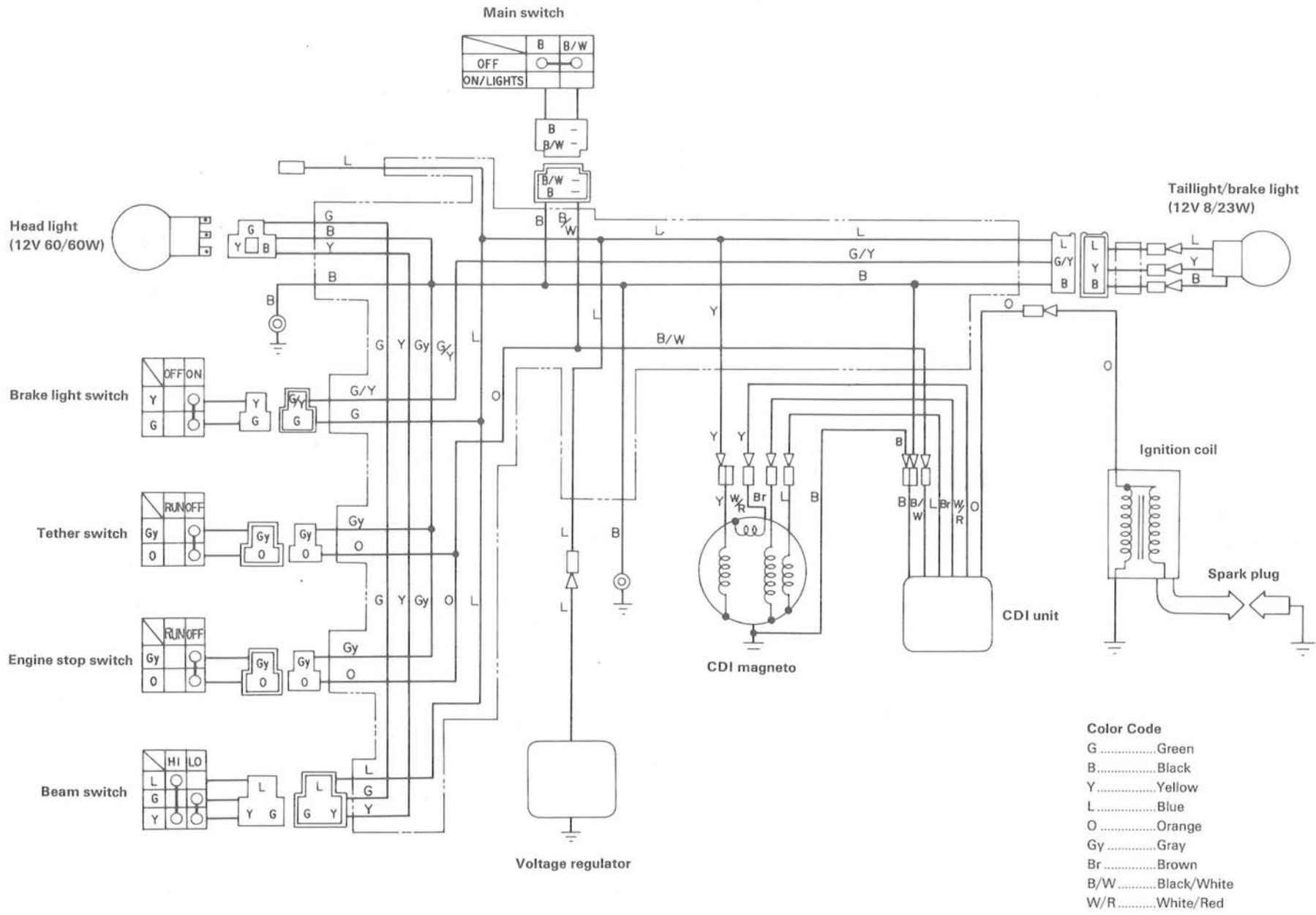
(For 1980 ET250D)



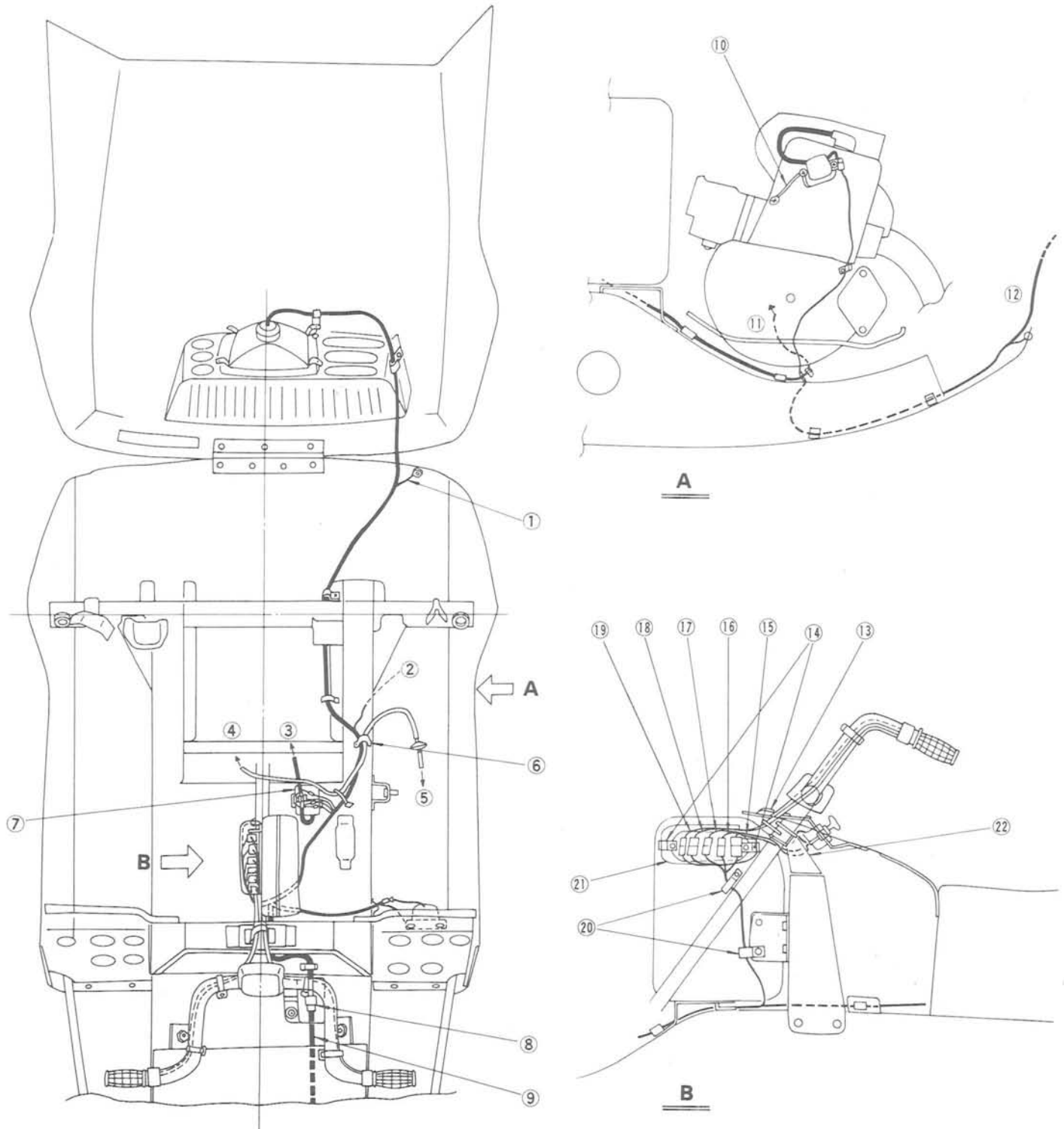
No.	Description	Tool No.
1-a	Dial gauge	90890-03097
1-b	Dial gauge stand No. 2	90890-01195
1-c	Needle (56 mm)	90890-03098
2-a	Flywheel puller bolt	90890-01803
2-b	Flywheel puller attachment	90890-01804
2-c	Flywheel puller screw	90890-01806
2-d	Drive handle	90890-01817
2-e	Flywheel puller body	90890-01848
3	crankcase separating tool	90890-01135
4	Spacer ($\phi 80 \times 55$ mm)	90890-01818
5-a	Crank installer bolt	90890-01275
5-b	Crank installer bolt adaptor (M16) (for Right)	90890-01280

No.	Description	Tool No.
5-c	Crank installer bolt adaptor (M12) (for Left)	90890-01279
5-d	Crank installer pot	90890-01274
6	Rotor holding tool	90890-01235
7	Sheave holder	90890-01880
8	Primary fixed sheave puller (M18)	90890-01881
9	Sheave sub-assembly tool	90890-01879
10	Bushing tool	90890-01877
11	Sheave gauge	90890-01875
12	Main switch ring nut tool	90890-01857
13	Pocket tester	90890-03104
14	Electro tester	90890-03021
15	A.C. Regulator checker	90890-03090

5. WIRING DIAGRAM



6. Wire routing diagram

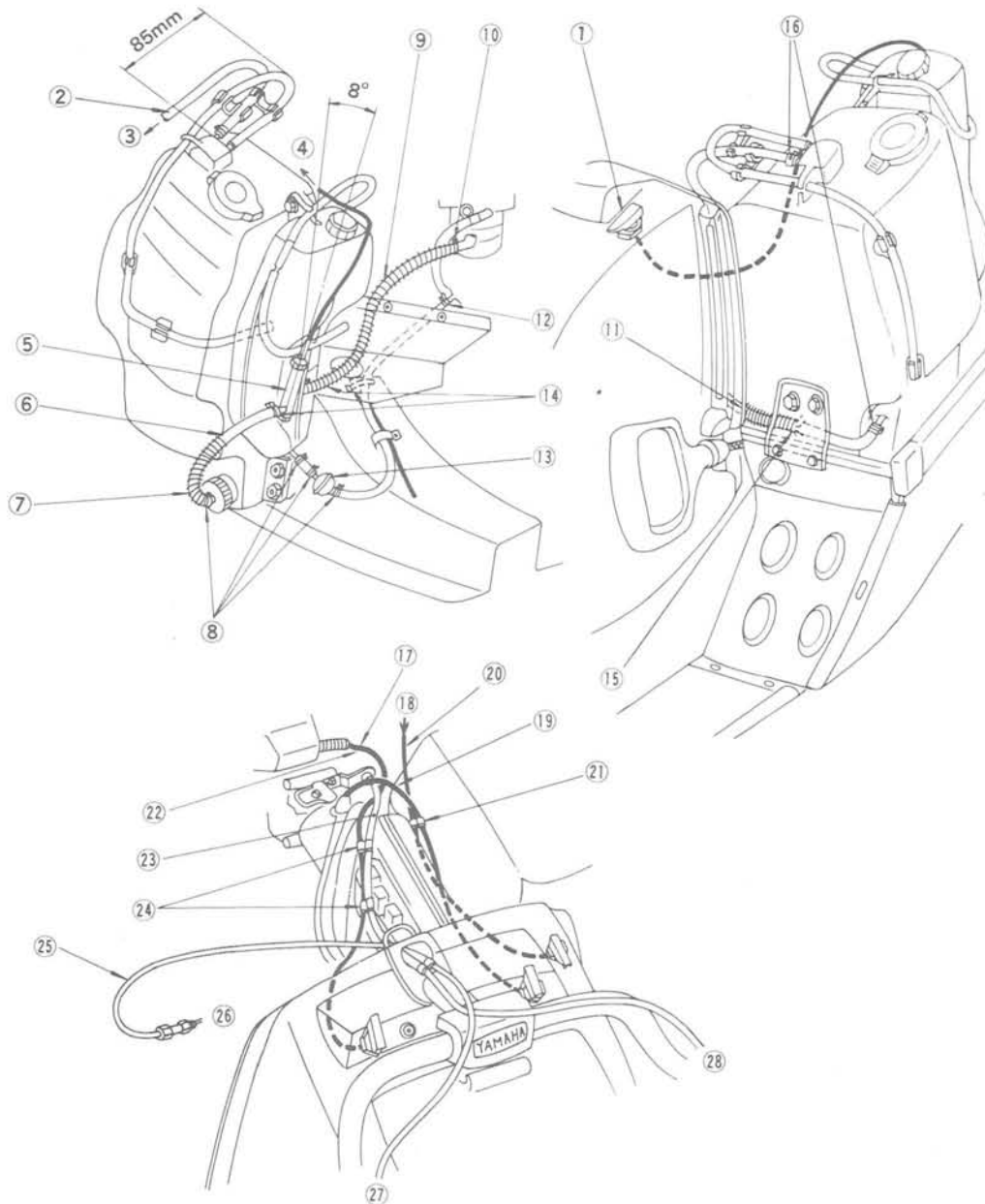


- 1. Ground to body
- 2. To ignition coil
- 3. To C.D.I. magneto
- 4. To oil pump
- 5. To oil tank
- 6. Clamp lead wire with oil pipe
- 7. C.D.I. unit
- 8. Put lead wire into connector after connecting
- 9. Taillight lead wire

- 10. Ground lead wire
- 11. To C.D.I. magneto
- 12. To headlight
- 13. Instrument panel grommet
- 14. Hook band
(Tighten hook with coupler holder)
- 15. Main switch lead wire
- 16. Tether switch lead wire
- 17. Engine stop switch lead wire

- 18. Headlight beam switch lead wire
- 19. Brake light switch lead wire
- 20. Clamp
(Tighten clamp with silencer bracket)
- 21. Engine cover
- 22. Pass through inside of gate bracket.

Piping and control cable diagram



- | | |
|---|--|
| 1. Fuel cock lever | 11. To oil pump |
| 2. Fuel level hose | 12. Clip |
| 3. To vertical position (To indicate fuel level) | 13. Oil filter |
| 4. To instrument panel | 14. Clip |
| 5. Fuel cock assembly | 15. Pipe protector must be touched fuel tank clamp |
| 6. Fuel pipe | 16. Clip |
| 7. The pipe protector (coil spring) must be so positioned that its bottom end overlaps (at least one turn of the winding) the end of fuel filter nozzle and that its smaller end diameter end faces upward. | 17. Route the decompressor wire so it is as much straight as possible. |
| 8. Clip | 18. To fuel cock |
| 9. the pipe protector (coil spring) must be so positioned that its both end overlap (at least one turn of the winding) the nozzle of the carburetor and fuel cock nozzle. | 19. Starter wire |
| 10. Clip | 20. Fuel cock wire |
| | 21. Clip |
| | 22. Decompressor wire |
| | 23. Throttle wire |
| | 24. Clip |
| | 25. Brake wire |
| | 26. To brake caliper |
| | 27. To brake lever |
| | 28. To throttle lever |